



Common Market for Eastern and Southern Africa



EDICT OF GOVERNMENT



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COMESA 263 (2006) (English/French): Textiles
-Morphology of fibres and yarns - Vocabulary

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COMESA HARMONISED
STANDARD

COMESA/FDHS
263: 2006

**Textiles -Morphology of fibres and yarns -
Vocabulary**

REFERENCE: FDHS 263: 2006

Foreword

The Common Market for Eastern and Southern Africa (COMESA) was established in 1994 as a regional economic grouping consisting of 20 member states after signing the co-operation Treaty. In Chapter 15 of the COMESA Treaty, Member States agreed to co-operate on matters of standardisation and Quality assurance with the aim of facilitating the faster movement of goods and services within the region so as to enhance expansion of intra-COMESA trade and industrial expansion.

Co-operation in standardisation is expected to result into having uniformly harmonised standards. Harmonisation of standards within the region is expected to reduce Technical Barriers to Trade that are normally encountered when goods and services are exchanged between COMESA Member States due to differences in technical requirements. Harmonized COMESA Standards are also expected to result into benefits such as greater industrial productivity and competitiveness, increased agricultural production and food security, a more rational exploitation of natural resources among others.

COMESA Harmonized Standards are developed by the COMESA experts on standards representing the National Standards Bodies and other stakeholders within the region and are approved after circulating Final Draft Harmonized Standards (FDHS) to all member states for at least three months. The assumption is that all contentious issues would have been resolved during the previous stages or that an international or regional standard being adopted has been subjected through a development process consistent with accepted international practice.

COMESA Standards are subject to review, to keep pace with technological advances. Users of the COMESA Harmonized Standards are therefore expected to ensure that they always have the latest version of the standards they are implementing.

This COMESA standard is technically identical to ISO 8159:1987- Textiles -Morphology of fibres and yarns - Vocabulary

<p>A COMESA Harmonized Standard does not purport to include all necessary provisions of a contract. Users are responsible for its correct application.</p>
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INTERNATIONAL STANDARD NORME INTERNATIONALE

**ISO
8159**

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INTERNATIONAL ORGANIZATION FOR STANDARDIZATION
ORGANISATION INTERNATIONALE DE NORMALISATION
МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ

**Textiles — Morphology of fibres and yarns —
Vocabulary**

**Textiles — Morphologie des fibres et fils —
Vocabulaire**

Reference number
Numéro de référence
ISO 8159: 1987 (E/F)

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work.

Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council. They are approved in accordance with ISO procedures requiring at least 75 % approval by the member bodies voting.

International Standard ISO 8159 was prepared by Technical Committee ISO/TC 38, *Textiles*.

Users should note that all International Standards undergo revision from time to time and that any reference made herein to any other International Standard implies its latest edition, unless otherwise stated.

Avant-propos

L'ISO (Organisation internationale de normalisation) est une fédération mondiale d'organismes nationaux de normalisation (comités membres de l'ISO). L'élaboration des Normes internationales est normalement confiée aux comités techniques de l'ISO. Chaque comité membre intéressé par une étude a le droit de faire partie du comité technique créé à cet effet. Les organisations internationales, gouvernementales et non gouvernementales, en liaison avec l'ISO participent également aux travaux.

Les projets de Normes internationales adoptés par les comités techniques sont soumis aux comités membres pour approbation, avant leur acceptation comme Normes internationales par le Conseil de l'ISO. Les Normes internationales sont approuvées conformément aux procédures de l'ISO qui requièrent l'approbation de 75 % au moins des comités membres votants.

La Norme internationale ISO 8159 a été élaborée par le comité technique ISO/TC 38, *Textiles*.

L'attention des utilisateurs est attirée sur le fait que toutes les Normes internationales sont de temps en temps soumises à révision et que toute référence faite à une autre Norme internationale dans le présent document implique qu'il s'agit, sauf indication contraire, de la dernière édition.

Textiles — Morphology of fibres and yarns — Vocabulary

1 Scope and field of application

This International Standard defines the principal terms used to describe the various forms into which textile fibres can be assembled, up to and including cabled yarns.

It contains only terms of general application; terms and/or definitions which are specific to particular fibres (such as hemp, silk, textile glass, metal fibre, carbon fibre, etc.) are excluded.

A diagram is included which illustrates the relationship between various terms from a production point of view.

This International Standard does not include terms which describe the manufacturing or processing methods, or terms used to quantify fibre and yarn properties.

2 Reference

ISO 8160, *Textiles — Textured filament yarns — Vocabulary*.

3 Terms and definitions

These definitions are listed in an order which follows, in general, the textile processing sequence.

3.1 textile fibre: A substance characterized by its flexibility, fineness and high ratio of length to cross-section, suitable for textile applications.

3.2 staple fibre: A textile fibre of limited length.

3.3 filament: A textile fibre of very great length considered as continuous.

3.4 textile film: A textile substance in film form in which the molecular orientation is essentially in the longitudinal direction.

Textiles — Morphologie des fibres et fils — Vocabulaire

1 Objet et domaine d'application

La présente Norme internationale définit les principaux termes utilisés pour la description des différentes formes sous lesquelles les fibres textiles peuvent être présentées (les fils câblés y compris).

Elle ne comprend que les termes à caractère général. Les termes et/ou définitions spécifiques de fibres particulières (telles que celles de chanvre, soie, verre textile, métal, carbone, etc.) sont exclus.

Il est donné un schéma illustrant les relations entre les divers termes du point de vue de la production.

La présente Norme internationale n'inclut pas les termes qui décrivent les méthodes de fabrication ou les procédés ainsi que les termes utilisés pour quantifier les propriétés des fibres et des fils.

2 Référence

ISO 8160, *Textiles — Fils continus texturés — Vocabulaire*.

3 Termes et définitions

Ces définitions sont données dans un ordre suivant, en général, les principales étapes de la mise en œuvre.

3.1 fibre textile: Élément caractérisé par sa flexibilité, sa finesse et le rapport élevé de sa longueur à sa section, apte à des applications textiles.

3.2 fibre discontinue: Fibre textile de longueur limitée.

3.3 filament: Fibre textile de très grande longueur, considérée comme «continue».

3.4 film textile: Élément textile en forme de film avec orientation moléculaire principalement longitudinale.

3.5 tape yarn¹⁾: A flat filament yarn the elements of which have a high ratio of width to thickness having been slit from a textile film or extruded in tape form.

3.6 fibrillated tape yarn¹⁾: A tape yarn split in the length direction with transverse connections between the fibrils.²⁾

3.7 tow (for man-made staple fibres): A large number of filaments assembled without substantial twist usually intended to be cut and/or stretch-broken for use in staple fibre or top form.

3.8 staple in bulk: A disordered mass of staple fibres.

3.9 card web: A thin disordered layer of fibres held together by frictional forces.

3.10 sliver or top³⁾: An indefinitely long assembly of staple fibres, substantially parallel and without twist, and capable of being drafted.

3.11 roving: An indefinitely long assembly of staple fibres, substantially parallel with slight twist, but capable of being drafted.

3.12 flock: Very short fibres destined to be stuck to a backing.

3.13 yarn: A textile product of substantial length and relatively small cross-section of fibres and/or filaments with or without twist.

NOTE — A general term covering all the specific types of yarns.

3.14 spun yarn¹⁾: A yarn made of staple fibres usually bound together by twist.

3.15 bulked spun yarn¹⁾: A spun yarn in which additional bulkiness has been developed by means of chemical and/or thermal treatment.

3.16 filament yarn¹⁾: A yarn composed of one filament (monofilament) or more filaments (multifilament) with or without twist.

3.17 singles yarn¹⁾: A yarn having no twist, or a yarn in which the twist has been inserted in a single operation.

3.18 multiple wound yarn¹⁾: A yarn formed from two or more yarns wound together without twist.

3.5 lame textile¹⁾: Élément textile plat, du type filament, de rapport élevé entre largeur et épaisseur, obtenu par coupe à partir d'un film textile, ou bien extrudé en forme de lame.

3.6 lame fibrillée¹⁾: Lame textile fissurée dans le sens longitudinal avec création de fibrilles reliées transversalement.²⁾

3.7 câble (pour fibres discontinues chimiques): Assemblage sans torsion notable d'un grand nombre de filaments, généralement destiné à être sectionné et/ou craqué pour l'utilisation sous forme de fibres discontinues ou de rubans.

3.8 bourre: Ensemble de fibres discontinues présentées sans ordre apparent.

3.9 nappe cardée: Fine couche de fibres disposées sans ordre apparent, et dont la cohésion résulte de forces de friction.

3.10 ruban³⁾: Ensemble étirable de grande longueur, sans torsion notable, de fibres discontinues sensiblement parallèles.

3.11 mèche: Ensemble étirable de grande longueur de fibres discontinues sensiblement parallèles maintenues par une légère torsion.

3.12 floc: Fibres de très courte longueur destinées à être collées sur un support.

3.13 fil: Produit textile de grande longueur et de section transversale relativement petite de fibres ou de filaments avec ou sans torsion.

NOTE — Terme général englobant tous les types particuliers de fils.

3.14 filé¹⁾: Fil constitué de fibres discontinues dont la cohésion est généralement obtenue par torsion.

3.15 filé gonflant¹⁾: Filé qui, à la suite d'un traitement chimique et/ou thermique, a un volume remarquablement supérieur à celui du même filé non traité.

3.16 fil continu¹⁾: Fil constitué d'un filament (monofilament) ou de plusieurs filaments (multifilaments) avec ou sans torsion.

3.17 fil simple¹⁾: Fil sans torsion, ou fil auquel la torsion est donnée en une seule opération.

3.18 fil assemblé¹⁾: Fil formé de la réunion sans torsion de deux ou plusieurs fils.

1) Specific types of the general term "yarn".

2) The "fibrils" are here film sections having linear densities of the same order as textile fibres.

3) The English translation of "ruban de laine" is "wool top" and not "roving or sliver".

1) Types particuliers de terme général «fil».

2) Les fibrilles sont dans ce cas des éléments dont la finesse est du même ordre que celle des fibres textiles.

3) La traduction en anglais de «ruban de laine» est «wool top» et non «roving or sliver».

3.19 folded yarn¹⁾ (plied yarn): A yarn in which two or more singles yarns (plies), are twisted together in a single operation.

3.20 cabled yarn¹⁾: A yarn in which two or more yarns, at least one of which is a folded yarn, are twisted together in one or more operations.

3.21 textured filament yarn¹⁾: Multi- or monofilament yarn characterized by twist and/or crimp by which it has, or can develop by after-treatment, stretch and/or bulk-properties.

3.19 fil retors¹⁾: Fil formé de deux ou plusieurs fils simples (bouts) réunis par une seule opération de torsion.

3.20 fil câblé¹⁾: Fil formé de deux ou plusieurs fils dont l'un au moins est un fil retors, réunis par une ou plusieurs opérations de torsion.

3.21 fil continu texturé¹⁾: Fil continu (multifilament ou monofilament) ayant des caractéristiques de torsion et/ou de frisure existantes ou révélables par traitement ultérieur, grâce auxquelles il acquiert une extensibilité élastique et/ou une voluminosité accrue.

4 Morphological scheme

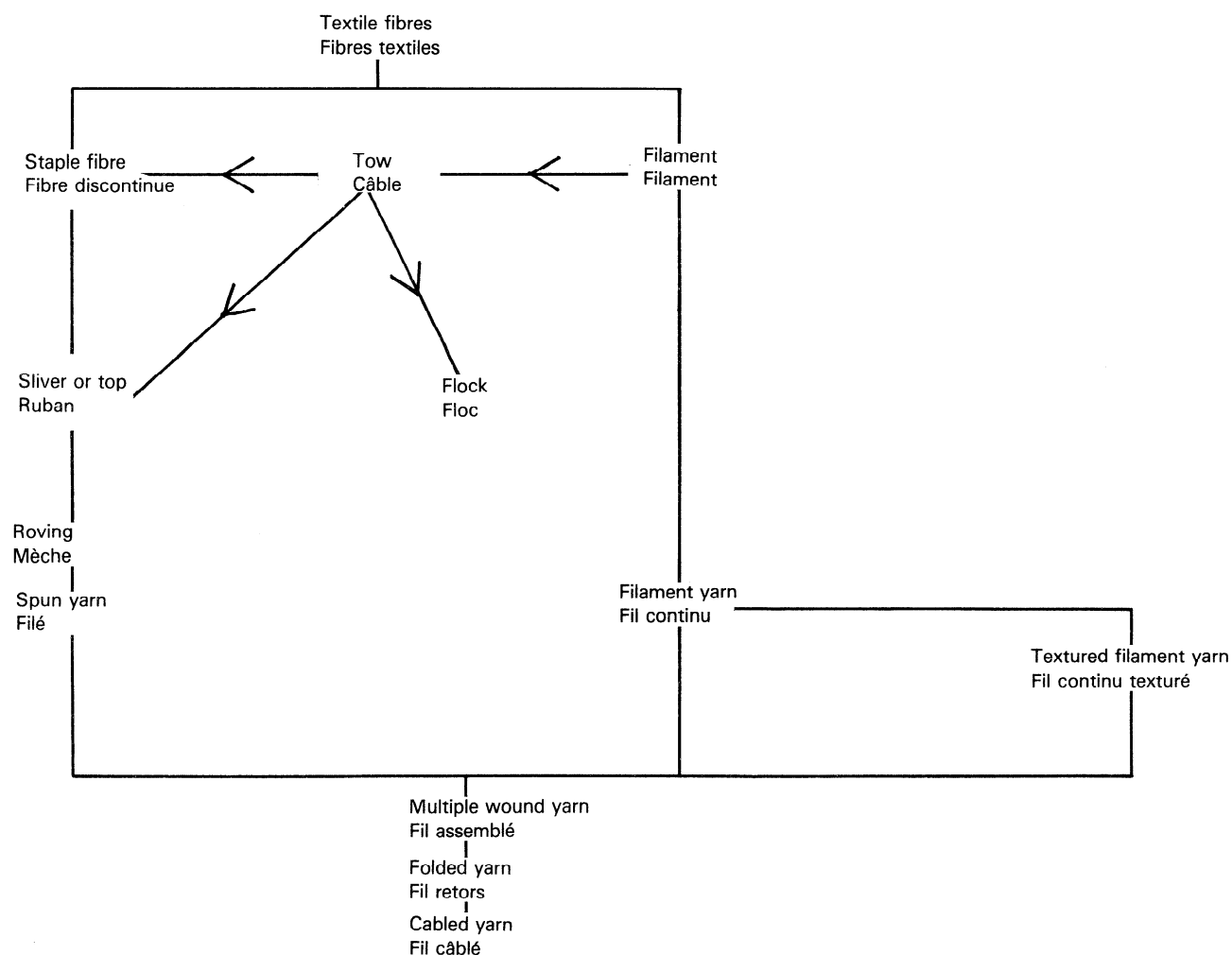
A morphological scheme is given below. Not all of the terms defined in clause 3 are contained in the diagram, nor are all possible production routes represented.

NOTE — Definitions of textured filament yarns are given in ISO 8160.

4 Schéma morphologique

Un schéma morphologique est donné ci-après. Tous les termes définis dans le chapitre 3 ne figurent pas sur le schéma suivant et toutes les séquences possibles de production ne sont pas représentées.

NOTE — Les définitions des fils continus texturés figurent dans l'ISO 8160.



1) Specific types of the general term "yarn".

1) Types particuliers de terme général «fil».

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